

**Trent Regional SAPC Spring Meeting**

**Tuesday 21st March**

Doubletree by Hilton Hotel, Brayford Wharf North,  
Lincoln, LN1 1YW



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**ABSTRACT FORM**

<b>Title of the abstract:</b>	Effect on hypnotic prescribing of a quality improvement collaborative for primary care of insomnia: segmented regression analysis
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<b>Please indicate your preferred option:</b> <b>Parallel, Poster or Workshop</b>	Parallel Poster (display only)
<b>Abstract: (346 words)</b>  <b>Introduction</b> Patients with insomnia commonly present to general practice. Hypnotic misuse and underuse of psychological treatments demonstrates scope for improved care. To explore this, we undertook a feasibility study using a Quality Improvement Collaborative (QIC) across 8 general practices, investigating the effect of implementing sleep assessment and psychological interventions on hypnotic prescribing.  <b>Methods</b> We used a before-after analysis of the time series of prescribing of benzodiazepines (e.g. diazepam, temazepam, lorazepam) and Z-drugs (e.g. zopiclone, zolpidem, zaleplon) across intervention practices. We contrasted results with those for 8 control practices not subject to the QIC. <i>Data</i> were constructed as average daily quantity of hypnotic prescribed per Specific Therapeutic group Age-sex weightings Related Prescribing Unit (STAR-PU) for the period October 2005 to March 2010. <i>Modelling</i> was by 2-segment intercept-trend regression performed on the 24 month periods either side of the 6-month operation of the QIC (October 2007 to March 2008). <i>Estimation</i> was by either least squares or corrected using the Prais-Winsten method if error serial correlation was present in the errors. We then jointly re-estimated across all intervention practices (repeated on all control practices) using seemingly unrelated regressions to allow for any potential correlations in the models' errors. <i>Testing</i> whether the intervention had been successful in inducing a structural break such that post-QIC prescribing of either drug was reduced, we constructed a bespoke test S based on the mean prediction error in the post-QIC period for aggregated intervention practices.  <b>Results</b> Comparing the two prescribing periods, there was a noteworthy and significant reduction in benzodiazepine prescribing in intervention practices over the shorter post-QIC term of 12 months ( $S=-2.46$ , $p=0.007$ ), but this was not sustained for the full 24 months post-QIC ( $S=-0.72$ , $p=0.236$ ). However, for Z-drugs prescribing reductions in intervention practices were sustained into the longer post-QIC period (12 months: $S=-1.98$ , $p=0.024$ ; 24 months, $S=-1.90$ , $p=0.029$ ). The before-after comparison to control practices showed no significant reduction in prescribing of either drug.  <b>Conclusion</b> Efficacy of the QIC in reducing hypnotic prescribing was shown, giving support to the need for a full scale trial. Varying length of persistence of outcomes warrants attention.	